

Manitoba Health

Annual Statistical Update on HIV and
AIDS, 2012

Data reported to December 31, 2012

Epidemiology & Surveillance
Public Health

Public Health and Primary Health Care Division

TABLE OF CONTENTS

Table of Contents

Executive Summary.....	4
Abbreviations and Acronyms	5
Acknowledgements	5
Introduction	6
Methods	7
Case definitions.....	7
Data Sources.....	7
Notes Regarding the Interpretation of HIV Statistics Presented in this Report	8
Results	9
1. Number of New HIV Cases	9
1.1. Previously Tested HIV Cases	10
2. Age-Sex Distribution of HIV Cases	11
3. Geographic Region of Residence	13
4. Self-Reported Ethnicity	14
5. Risk Exposure Categories	16
5.1. Risk Exposure Categories: Female HIV Cases	16
5.2. Risk Exposure Categories: Male HIV Cases	17
6. AIDS Cases Reported To December 31, 2012.....	18
Appendices.....	19
Appendix A: Technical Notes	20
Surveillance of HIV and AIDS in Manitoba	20
Calculation of Annual Rate	21
Context within Canada	21
Risk Exposure Categories (Primary Mode of Transmission)	21
Appendix B: Reporting Forms	24
Appendix C: HIV Descriptive Data Tables.....	25
Appendix D : AIDS Descriptive Tables	29

LIST OF FIGURES

Figure 1: Annual Crude Rate and Numbers of Newly Reported HIV Cases,	9
Figure 2: Number of Individuals Reported as Newly HIV Positive With and Without History of Previous Positive Test, Manitoba, 2008-2012	10
Figure 3: Number of Newly Reported HIV Cases by Age and Sex, Manitoba, 2012	11
Figure 4: Age-specific Rates for Newly Reported HIV Cases, Manitoba, 2003-2012	12
Figure 5: Distribution of New HIV Cases by Case Residence (Regional Health Authority) Manitoba, 2012	13
Figure 6: Distribution of Self-Reported Ethnicity Categories among Female Cases,	14
Figure 7: Distribution of Self-Reported Ethnicity Categories among Male Cases,	15
Figure 8: Female HIV Cases by Risk Exposure Category, Manitoba, 2008-2012	16
Figure 9: Male HIV Cases by Risk Exposure Category, Manitoba, 2008-2012	17
Figure 10: Number of Reported AIDS Cases, and Deaths, Manitoba, 2002-2012	18

LIST OF TABLES

Table 1: Number of HIV Positive Cases in Manitoba, from 1985 to December 31, 2012 ...	25
Table 2: Number of HIV Positive Cases in Manitoba, By Age Category, Sex, and Year ...	25
Table 3: Number of HIV Positive Cases in Manitoba, By Geographic Residence, Sex, and Year of Diagnosis	26
Table 4: Number of HIV Positive Cases in Manitoba, By Self-Reported Ethnicity and Year of Diagnosis	27
Table 5: Number of HIV Positive Cases in Manitoba By Risk Exposure Category (Primary Mode of Transmission) and Year of Diagnosis	28
Table 6: Number of Reported AIDS Cases and Deaths in Manitoba by Year of Diagnosis	29
Table 7: Number of Reported AIDS Cases in Manitoba, By Age-Gender Category and Year of Diagnosis	30
Table 8: Number of Reported AIDS Cases in Manitoba by RHA of Residence and Year of Diagnosis	30
Table 9: Number of Reported AIDS Cases in Manitoba by Risk Exposure Category (Primary Mode of Transmission) Among Female Cases	31
Table 10: Number of Reported AIDS Cases in Manitoba by Risk Exposure Category (Primary Mode of Transmission) Among Male Cases	31

Executive Summary

Manitoba Health is pleased to present the Annual Statistical Update: HIV and AIDS Report, 2012. This report is intended to provide HIV and AIDS surveillance information collected as part of on-going public health efforts in Manitoba. Below are a few selected highlights from the report:

- There were 74 newly positive HIV cases reported in 2012, compared to 80 new HIV cases in 2011. In absolute numbers, this is a decrease by 6 cases compared to the previous year.
- It should be noted that 23 cases reported that they had been previously tested and diagnosed outside of Manitoba; however this was the first time being identified as a case within Manitoba.
- In 2012, 61% of all cases (n=45 cases) were male and 39% were female (n=29 cases); the mean (average) age of cases was 39.8 years at time of report.
- The majority (74%) of new HIV cases reported residence in the Winnipeg RHA at the time of testing and diagnosis. The remainder reported residence in health regions outside of Winnipeg RHA.
- The three main ethnicity categories reported by cases were: Aboriginal (this includes First Nations, Inuit and Métis), accounting for 43%; African/ African-Canadian, 19% and Caucasian, 16%. It should be noted that 9.5% of new cases did not report on ethnicity in 2012.
- The three main Risk Exposure Categories (Primary Mode of Transmission) reported in 2012 were: Heterosexual contact (which accounted for 39% of cases), Men who have sex with men (19%) and Endemic (19%). It should be noted that 10% of new cases did not report a risk factor or exposure.
- There were seven (7) new AIDS cases reported in 2012 and three (3) deaths among AIDS cases reported.

How does Manitoba compare?

At the end of 2011, Manitoba had the third highest reported rate of newly positive HIV adults (15 years of age and older) among the provinces and territories. However in terms of absolute numbers, cases from Manitoba accounted for 3.7% of newly positive cases in Canada that year.

Source: Public Health Agency of Canada. HIV and AIDS in Canada. Surveillance Report to December 31, 2011 Surveillance and Risk Assessment Division, Centre for Communicable Diseases and Infection Control, Public Health Agency of Canada, 2012.

Abbreviations and Acronyms

Abbreviations used in this report:

AIDS	Acquired Immunodeficiency Syndrome
HIV	Human Immunodeficiency Virus
IDU	Injection drug use
MSM	Men who have sex with men
NIR	No identifiable risk
PHAC	Public Health Agency of Canada
Recp B/B products	Recipient of blood or blood products prior to 1985

Acknowledgements

Manitoba Health would like to acknowledge the important efforts of public health professionals and health care providers across the province involved in the interview of new cases and reporting case-based surveillance information to the provincial surveillance system. Without these continued efforts this report would not be possible.

Introduction

Manitoba Health is pleased to provide the 2012 Statistical Update: HIV and AIDS Report, 2012. This report is intended to provide HIV and AIDS surveillance information in Manitoba for new cases reported to the Public Health Surveillance Unit within Manitoba Health up to December 31, 2012. The 2012 HIV data presented here includes an examination by:

- Age and Sex Distribution,
- Geographic Region,
- Ethnicity, and
- Risk Exposure Category (Primary Mode of Transmission).

The historical data tables have been included in the appendices at the end of this report (Appendix C and Appendix D). This includes data collected since 1985 about reported HIV cases. The analysis of AIDS data are limited due to the small number of cases reported in recent years; however aggregate data tables are presented.

Methods

Case definitions

HIV case: an individual with a positive HIV antibody test reported for the first time to the Public Health Surveillance System, Surveillance & Epidemiology Unit at Manitoba Health. Note: This includes individuals who may have been previously tested and diagnosed in another province or country outside of Manitoba. These cases are considered “new to Manitoba” and are monitored as there may be impacts on use of health programs and services within Manitoba.

AIDS case: an individual reported by clinical report of an AIDS-defining illness and meeting the case definition for HIV (above).

The case definitions used by Manitoba for HIV and AIDS are based on those published by PHAC (http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/09vol35/35s2/HIV_VIH-eng.php and http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/09vol35/35s2/AIDS_SIDA-eng.php).

Data Sources

Case data: The dataset used in this report was extracted in September, 2013, from the Manitoba Health public health surveillance system databases. Note that as information is continuously reported and entered into the system, slight differences may occur from reports generated in the past.

Population data: Population registry data (mid-year 2012) used for calculation of rates was kindly provided by Health Information Management (HIM), Manitoba Health.

Notes Regarding the Interpretation of HIV Statistics Presented in this Report

- The number of new HIV cases reported may not be a reflection of the true number of new HIV infections per year (i.e. incidence) in the Manitoba population. It is possible for an individual to be tested with a non-nominal identifier and use nominal testing for a subsequent test¹. In this case, linkage of results can only be done when client consent is provided. In addition, as noted above, cases that have tested positive in another province or country may also be reported to the Public Health Surveillance System as new cases.
- Changes in the number of HIV positive individuals as well as observed trends must be interpreted with caution. There are a number of factors which may contribute to these changes, for example, changes in testing or reporting patterns among care providers.
- Information about ethnicity and risk exposure categories are self-reported by the individual during follow-up interview by health care provider or public health nurse. These can be subject to a degree of bias leading to possible under-reporting (or alternatively, over-reporting) of factors which may differ from year-to-year. There have also been challenges in obtaining completed case investigation reports in recent years.
- The categories of risk exposures presented in this report reflect the most likely mode of transmission of HIV for a new HIV case. Although more than one risk factor or exposure may be reported through the case investigation form, individuals are assigned to a "Primary Mode of Transmission" category based upon a pre-determined hierarchy. For simplicity, the term "Risk Exposure Category" is equivalent to "Primary Mode of Transmission" in this report. Further information can be found in the Technical Notes (Appendix A).

¹ More information about nominal and non-nominal testing for HIV can be found in Appendix A: Technical Notes .

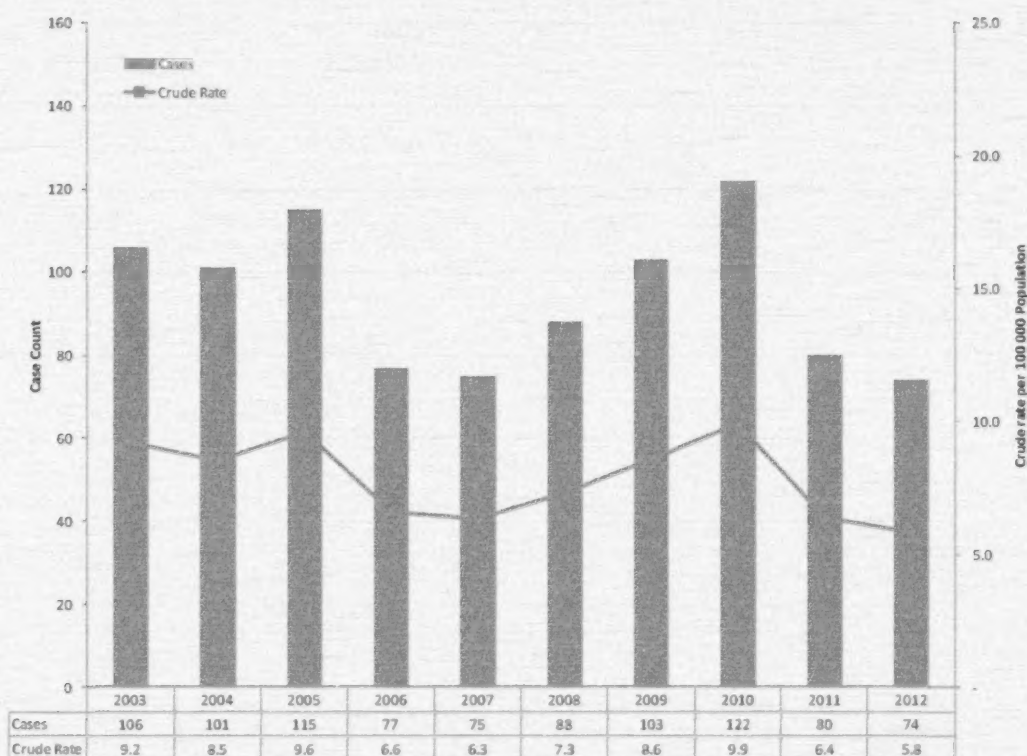
Results

1. Number of New HIV Cases

Between January 1, 2012 and December 31, 2012, there were 74 new cases of HIV reported in Manitoba based on laboratory-positive HIV antibody test; this is comprised of 45 male cases and 29 female cases. All positive HIV antibody tests that were reported to the Manitoba Health Public Health Surveillance System as new cases (i.e. not found in the system previously²) are included in this annual total, therefore these cases are considered *new* to the Manitoba surveillance system.

At 5.8 new HIV cases per 100 000 population, the crude rate for 2012 is lower than the previous year's reported rate (6.4 per 100 000 in 2011) and also lower than the ten-year average annual crude rate reported for 2002-2011 (8.7 per 100 000). Over the previous ten years, the crude rates range from a low of 6.3 per 100 000 population in 2007 to a high of 9.9 per 100 000 in 2010 (Figure 1).

Figure 1: Annual Crude Rate and Numbers of Newly Reported HIV Cases, Manitoba, 2003-2012

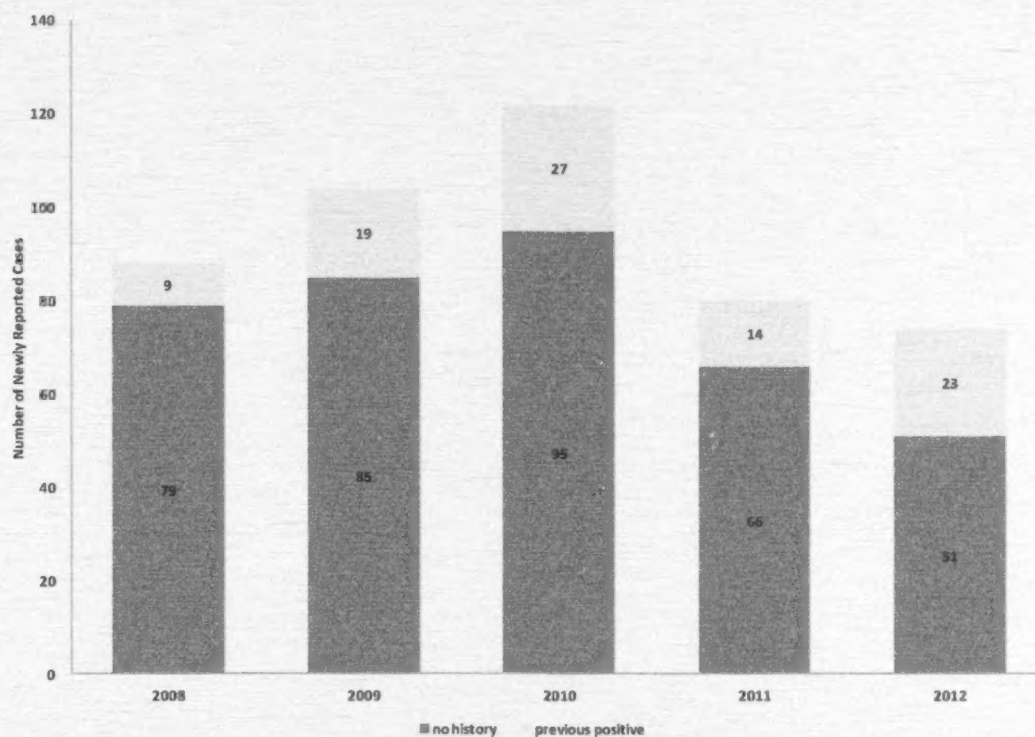


² See Appendix A for further information about the reporting of HIV in Manitoba.

1.1.Previously Tested HIV Cases

For 23 of the 74 (or 31%) newly reported HIV cases in 2012, there was an indication that the individual had tested positive for HIV previously in another province or country outside of Manitoba (represented by the light-blue-shaded portion of the bar, Figure 2). This shows that among the newly reported cases, not all necessarily represent a new infection of the virus. These cases are included in total case numbers for this report as there may be impacts on use of health programs and services within Manitoba.

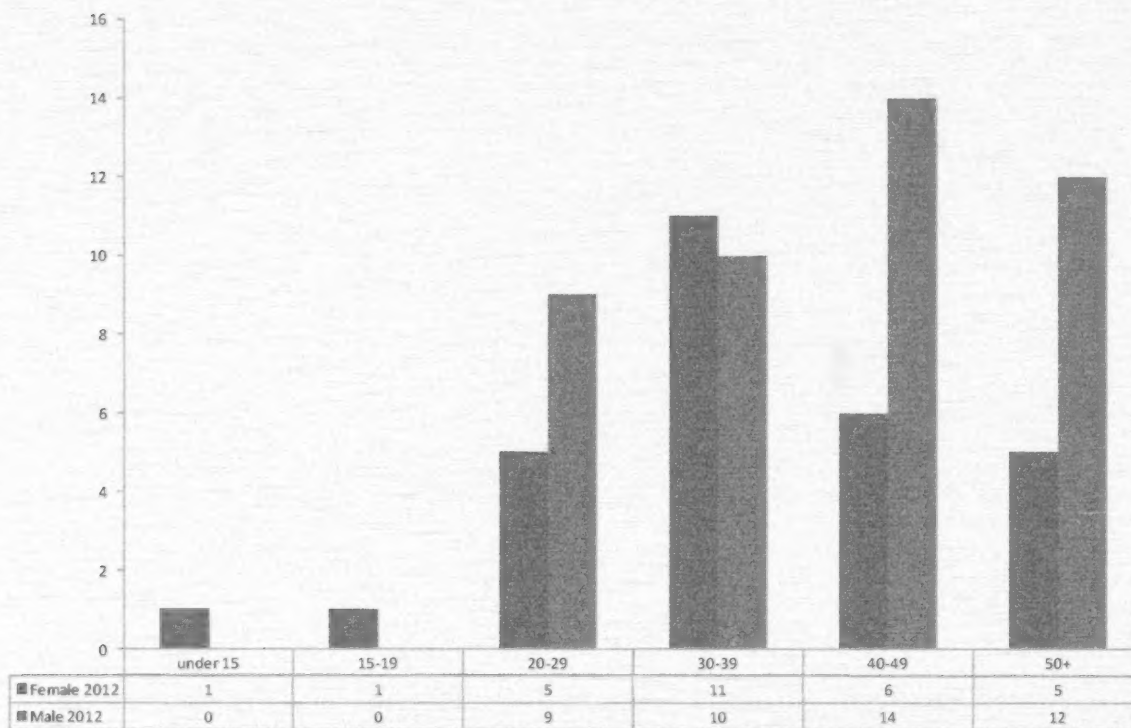
Figure 2: Number of Individuals Reported as Newly HIV Positive With and Without History of Previous Positive Test, Manitoba, 2008-2012



2. Age-Sex Distribution of HIV Cases

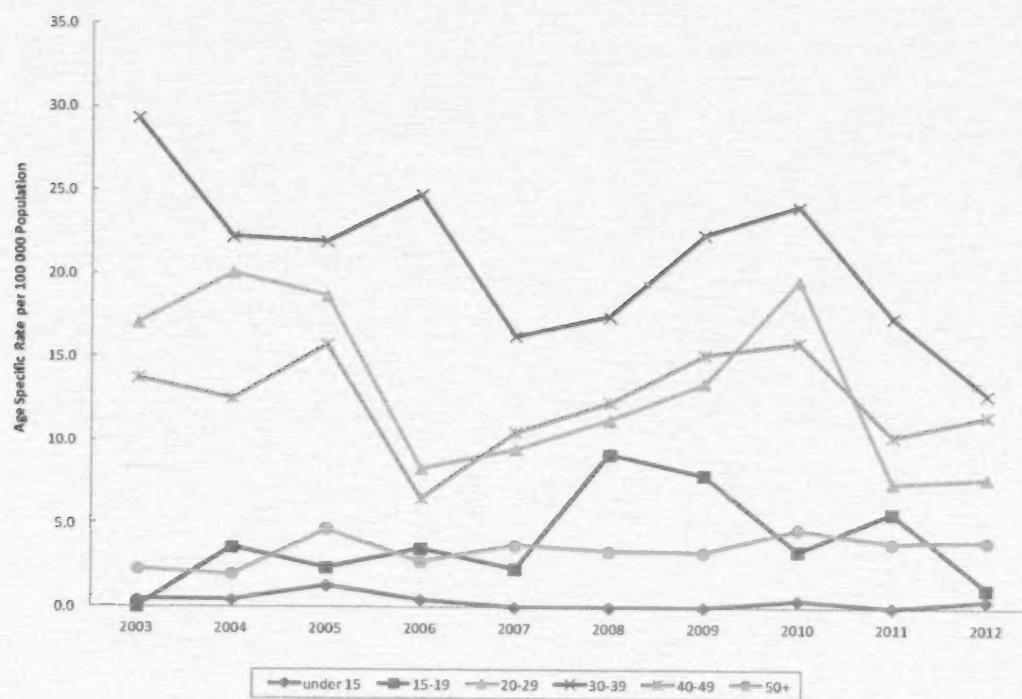
The following figure (Figure 3) presents age group and sex distribution for newly reported HIV cases in 2012 (n=74 cases). Males, 40-49 years of age account for the highest proportion of new HIV cases, followed closely by the 50+ age group. In the previous year, the 30-39 year age group accounted for the highest proportion of male cases. For female cases, the 30-39 year age group has the highest number of reported new cases; this is consistent with that reported in previous years.

Figure 3: Number of Newly Reported HIV Cases by Age and Sex, Manitoba, 2012



Trends over time are examined by age-specific rates of reported cases in Figure 4. Although prone to a degree of fluctuation, historically, the highest rates of newly reported HIV cases are found in the 30-39 year age group, followed by the 20-29 and 40-49 year age group. Of note, is the increase in rate for the 15-19 year age group in 2008; however in 2010 the rate in this group appears to have stabilized. Rates in the 50+ age group have also stabilized, albeit at a higher point than in the period before 2010 (see Figure 4).

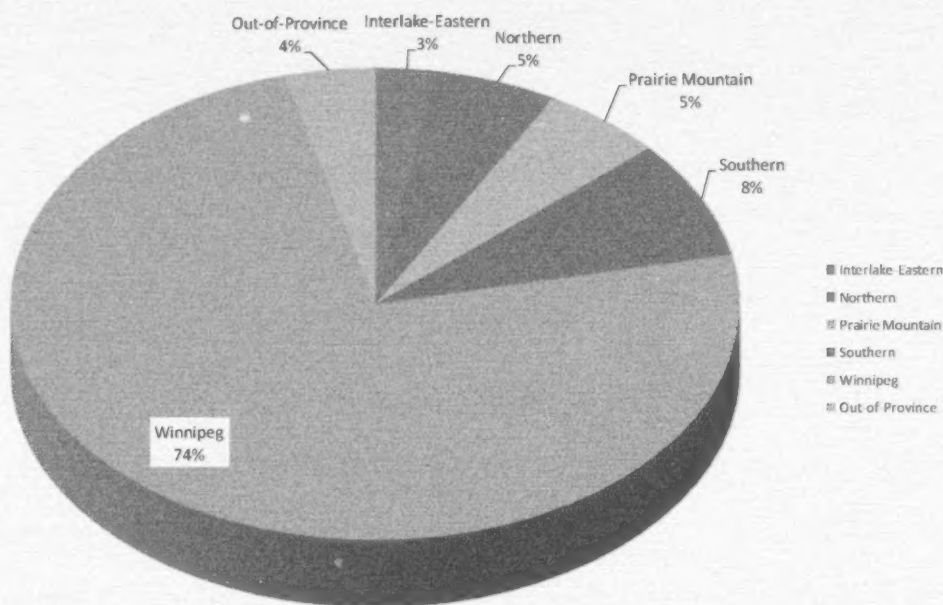
Figure 4: Age-specific Rates for Newly Reported HIV Cases, Manitoba, 2003-2012



3. Geographic Region of Residence

In 2012, as in previous years, the majority of new HIV cases were residents of the Winnipeg RHA at the time of testing; 55 of the 74 cases, (or 74%) (Figure 5). There is an apparent shift in reporting of rural cases, as more cases are identified from areas outside of Winnipeg compared to previous years. Also see data tables in Appendix C.

Figure 5: Distribution of New HIV Cases by Case Residence (Regional Health Authority) Manitoba, 2012



A detailed data table with RHA-specific information (based on the amalgamation of regional health authorities in Manitoba in June 2012) is provided in Appendix C. A map of the newly amalgamated health regions can be found on the Manitoba Health website at: <http://www.gov.mb.ca/health/rha/index.html>

4. Self-Reported Ethnicity

In 2012, 43% of the 74 new HIV cases self-reported ethnicity as Aboriginal; this includes First Nations, Inuit, and Métis. Nineteen per cent (19%) of new HIV cases reported African/African-Canadian (this includes Haitian and other Caribbean) and 16% Caucasian ethnicities. However it is also important to note that 10% of new cases did not report ethnicity on the case report form. Non-response to questions about ethnicity can vary from year-to-year; therefore this data should be interpreted with caution. Of note in 2012: 59% of female HIV cases reported Aboriginal ethnicity compared to 33% of male HIV cases (Figures 6 and 7), and a similar proportion of males and females did not report ethnicity.

Figure 6: Distribution of Self-Reported Ethnicity Categories among Female Cases, Manitoba 2008-2012

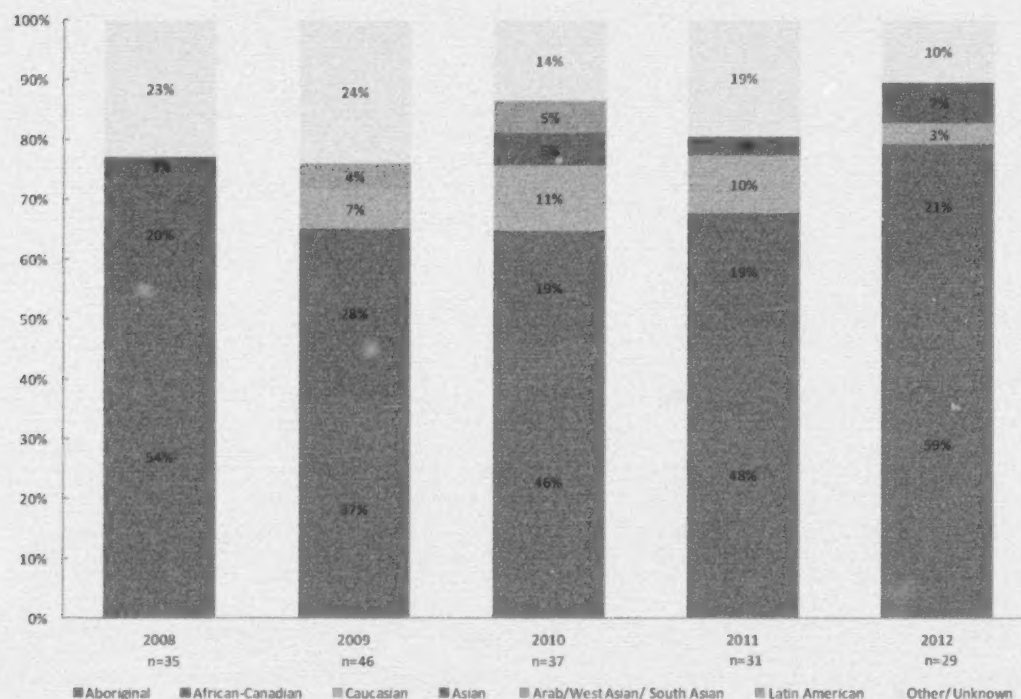
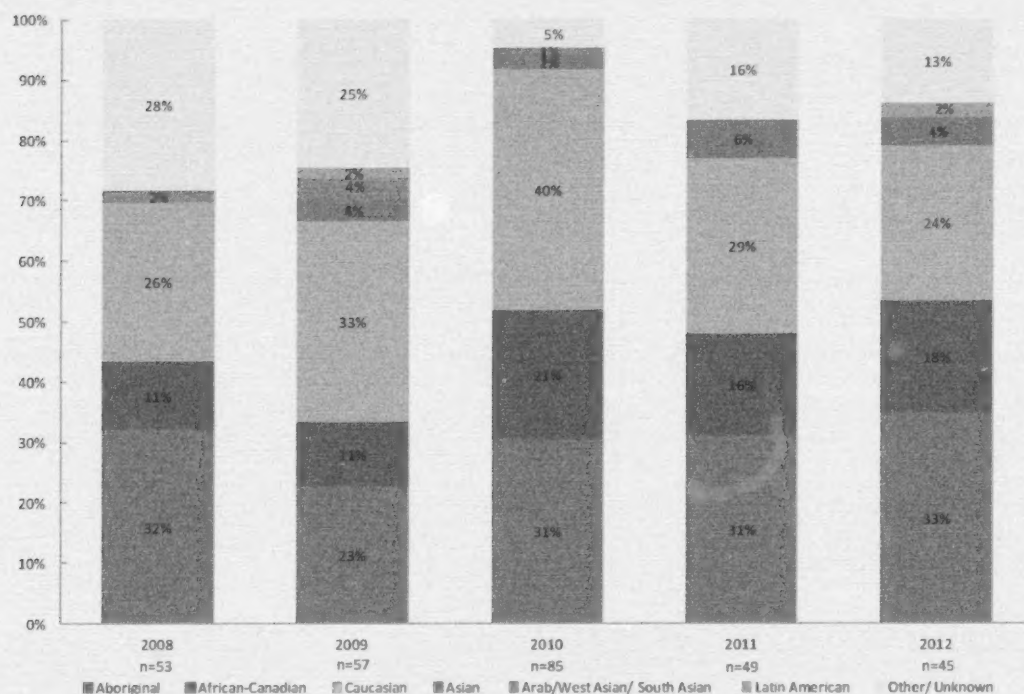


Figure 7: Distribution of Self-Reported Ethnicity Categories among Male Cases, Manitoba 2008-2012



Additional data tables can be found in Appendix C.

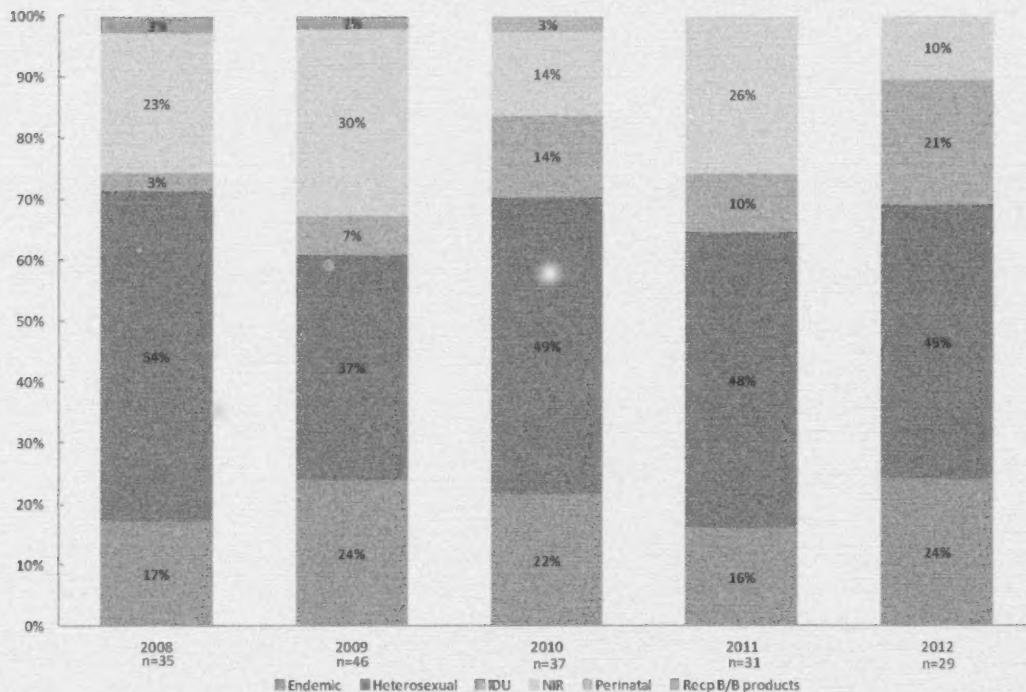
5. Risk Exposure Categories

The categories of risk exposures presented in this report reflect the most likely mode of transmission of HIV for a new HIV case. Although more than one risk factor or exposure may be reported through the case investigation form, individuals are assigned to a "Primary Mode of Transmission" or Risk Exposure Category based upon a pre-determined hierarchy. Appendix A further describes these risk exposure categories and methodology.

5.1. Risk Exposure Categories: Female HIV Cases

In 2012, heterosexual contact was the predominant primary exposure category among female HIV cases, reported by 45% of female cases (i.e. 13 of 29 female cases). This is followed by the endemic category (the majority of cases were born in a country where HIV is endemic— see Appendix A) accounting for 24% (i.e. 7 of 29 female cases); and IDU with 21% (i.e. 6 of 29 female cases). A comparison of reported risk exposure categories among female HIV cases between 2008 and 2012 is presented in Figure 8. As non-response to questions about risk exposure categories can vary from year-to-year, this data should be interpreted with caution.

Figure 8: Female HIV Cases by Risk Exposure Category, Manitoba, 2008-2012

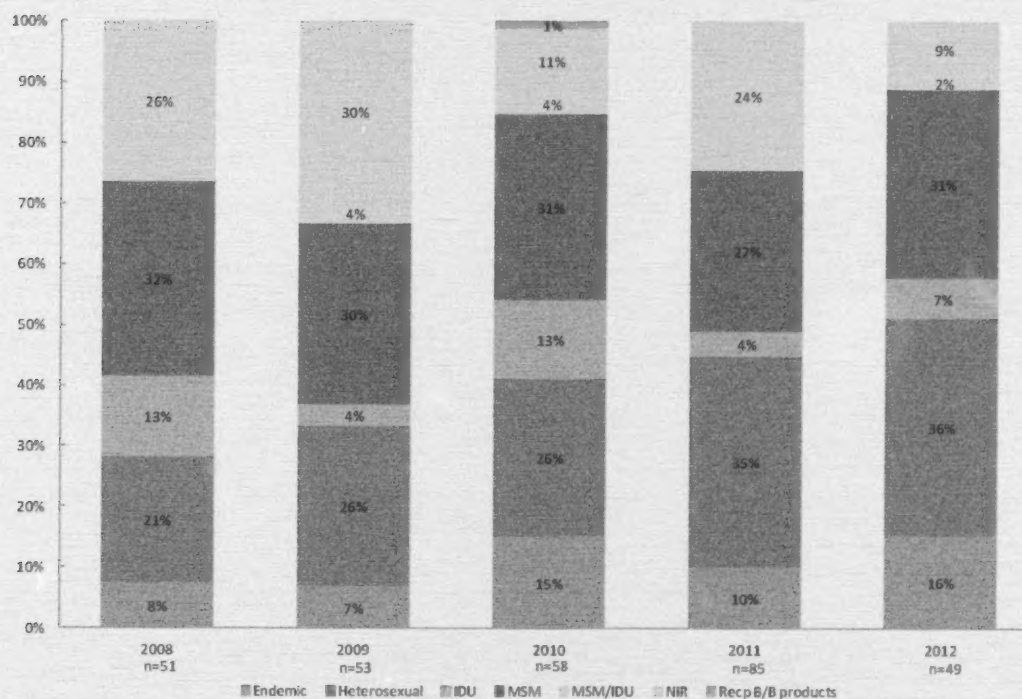


5.2. Risk Exposure Categories: Male HIV Cases

In 2012, heterosexual contact was the predominant primary risk exposure category reported by 36% of male cases (i.e. 16 of 45 male cases); this is followed by MSM (without evidence of IDU), at 31% (i.e. 14 of 45 male cases). Endemic as a risk exposure category, accounted for 7 cases or 16% (Figure 9).

The proportion of male cases, who did not report an identifiable risk factor (NIR) was 9% in 2012, an improvement over the previous year's proportion. For these cases typically, no risk factor information was collected, and as this can vary from year-to-year, it is difficult to interpret trends in risk factors for transmission and acquisition of HIV. Similarly, with female cases there was also a notable proportion (10%) with NIR reported. Missing information creates a data limitation in the monitoring of risk factors for transmission and acquisition of HIV.

Figure 9: Male HIV Cases by Risk Exposure Category, Manitoba, 2008-2012

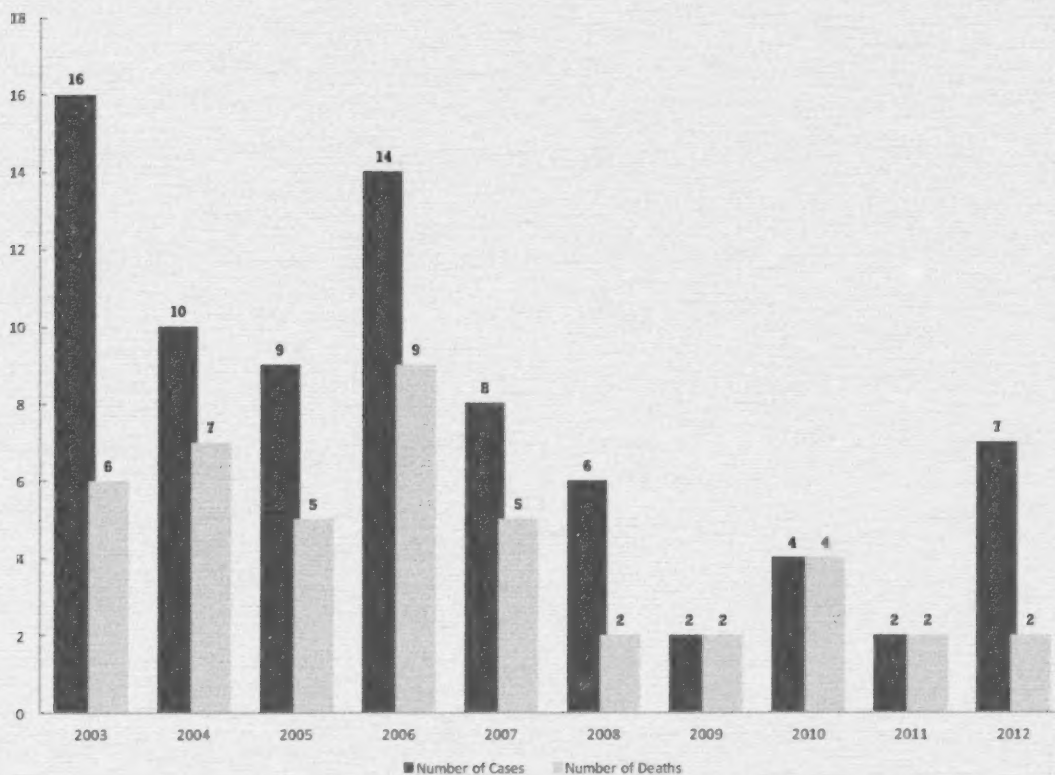


6. AIDS Cases Reported To December 31, 2012

In 2012, seven (7) new cases with AIDS diagnosis were reported; five male and two female. The average age of these cases was 43.6 years. There were also two (2) reports of deceased AIDS cases in 2012. The addition of these case reports brings the total number of AIDS cases to 291 since 1985. Seventy-one percent (71%) of these individuals, reported with AIDS, have died; however, delays in reporting of both cases and deaths make it difficult to determine the actual mortality rates.

There is variability in the number of reported AIDS cases over the previous ten years. The largest number of cases was reported in 2003, with 16 cases. Since 2007, there has been an overall decrease in the number of reported cases (Figure 11).

Figure 10: Number of Reported AIDS Cases, and Deaths, Manitoba, 2002-2012



Appendices

Appendix A: Technical Notes

Surveillance of HIV and AIDS in Manitoba

All confirmatory HIV antibody testing in Manitoba is carried out at Cadham Provincial Laboratory (CPL). Positive HIV antibody test results are subsequently reported to the Chief Provincial Public Health Officer as required by the *Reporting of Diseases and Conditions Regulations, Public Health Act*. Upon receipt of this lab report, the Public Health Surveillance Unit (at Manitoba Health) will send the *HIV Case Investigation Form for Nominal & Non-Nominal Positive Cases* (see Appendix B) to the healthcare provider who ordered the testing for completion and verification of a new or existing case. However, there have been delays in the completion and return of this form. Consequently, all HIV positive test results are considered new cases unless otherwise advised by the appropriate health care professional.

The expansion of HIV antibody testing occurred on January 1, 2007 and November 1, 2007 with the introduction of nominal (the option of testing under name) and anonymous testing, respectively, in addition to the existing non-nominal testing³ option. More information describing the three testing options can be found in the Communicable Disease Management Protocol for HIV/AIDS

(<http://www.gov.mb.ca/health/publichealth/cdc/protocol/index.html>).

It should be noted that nominal testing has steadily increased since its introduction and in 2012 most HIV tests were done under nominal testing. However, it is also possible that individuals tested in the past using a non-nominal code, to have a subsequent test using different codes or by name. Due to this the public health surveillance system has experienced challenges in identifying clients who have had repeat tests. As a result there are concerns that duplicate cases may be included in the system.

AIDS cases and deaths are also reportable by physicians and health care professionals. New AIDS cases and deaths are reported to the Chief Provincial Public Health Officer as required by the *Reporting of Diseases and Conditions Regulations, Public Health Act*. The national *HIV/AIDS Case Report Form* is used in Manitoba for this purpose. This report describes AIDS cases based on year of diagnosis of the first clinical AIDS defining illness (as defined by the national case definitions published by the Public Health Agency of

³ Under non-nominal testing, only the person ordering the test knows the identity of the person tested and is able to link the result to that person's health care record. So name, address and other personal identifiers are not provided to the laboratory or the public health surveillance system unless consent to share this information is provided (also see Public Health Act (Section 9(4)) for reporting of HIV cases tested under code.)

Canada⁴). It should be noted that this may not be the same as the year that the case was reported to the Public Health Surveillance System (at Manitoba Health).

Twice a year, provincial HIV and AIDS case data is reported to the Centre for Communicable Disease and Infection Control, Public Health Agency of Canada for inclusion within the national surveillance report, *HIV and AIDS in Canada*. The variations seen from previous provincial and national reports with respect to the number of HIV and AIDS cases and deaths may be accounted for by delays in reporting as well as continuous update of information in the Manitoba Health databases. The dataset used in this report was originally reported to PHAC in February, 2013, however further case confirmation may have occurred since then, thus changing the number of cases.

Calculation of Annual Rate

The annual rate of newly reported HIV Cases per 100 000 population was calculated by: the number of newly reported cases in a one year period divided by the Manitoba population of that year and multiplied by 100 000. Population registry data (mid-year 2012) used for calculation of rates was kindly provided by Health Information Management (HIM), Manitoba Health.

Context within Canada

The number of new HIV cases may not be a reflection of the true number of new HIV infections per year (i.e. incidence) in the Manitoba population. Many persons are unaware of their HIV status and therefore go undetected and unreported. The Public Health Agency of Canada (PHAC) estimates that in 2011, approximately, 71,300 persons were living with HIV in Canada; approximately 25% of persons are unaware of their HIV status.⁵

At the end of 2011, it was estimated that 2,100 persons in Manitoba were living with HIV (note this is an estimate of HIV prevalence).⁶

Risk Exposure Categories (Primary Mode of Transmission)

The categories of risk exposures presented in this report reflect the most likely mode of transmission of HIV for a new HIV case. Although more than one risk factor or exposure may be reported through the case investigation form, individuals are assigned to a "Primary Mode of Transmission" category based upon a hierarchy, which has been used in production of this statistical report since 2002 (Figure 8). This hierarchy groups cases with similar risk exposures, however, if more than one risk factor is reported, the

⁴ Source: Public Health Agency of Canada. Case Definitions for Communicable Diseases Under National Surveillance - 2009. Canada Communicable Disease Report. Vol35-S2. Nationally Notifiable Diseases - http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/09vol35/35s2/AIDS_SIDA-eng.php

⁵ Public Health Agency of Canada. Centre for Communicable Disease and Infection Control. *Summary: Estimates of HIV Prevalence and Incidence in Canada, 2011*. Released: November 21, 2012.

⁶ HIV Prevalence estimates for Manitoba provided by the Public Health Agency of Canada. Centre for Communicable Disease and Infection Control, November, 2012.

hierarchy assigns cases based on which factor is most likely to have been the mode of transmission of the virus. The hierarchy used by Manitoba Health is similar (but not identical) to that used by the Public Health Agency of Canada. For simplicity, the term Risk Exposure Category is equivalent to "Primary Mode of Transmission" in this report. Note that the abbreviations used are defined in Table A3

Table A-1: Manitoba Primary Mode of Transmission Hierarchy⁷

Males	Females
1. MSM/IDU	1. IDU
2. MSM	2. Endemic
3. IDU	3. Recipient of Blood/ Blood Products prior to 1985
4. Endemic	4. Heterosexual Contact
5. Recipient of Blood/ Blood Products prior to 1985	5. Occupational
6. Heterosexual Contact	6. Perinatal
7. Occupational	7. No Identifiable Risk (NIR)
8. Perinatal	
9. No Identifiable Risk (NIR)	

It should be noted that : MSM/IDU includes cases with risk factors reported as men who have had sex with men (MSM) and injection drug use (IDU). The Endemic category includes the following risk factors: born in an HIV-endemic country, sexual contact while in an HIV endemic country, and Injection Drug Use (IDU) within an HIV-endemic country. No identifiable risk (NIR) is the category assigned to a case when no risk factor information is available from the case report form (including when the case report form was not completed).

Challenges in obtaining completed case reports have been noted in recent years. Therefore, risk exposure category information presented recent years should be interpreted with some caution particularly with comparisons to previous years due to the varying degrees of incomplete risk factor information for this period. Missing information creates a data limitation and it is difficult to determine if the distribution of risk exposure categories (in terms of percentages of total number of cases) shown in the most recent dataset reflect true changes.

⁷ Definitions of Primary Mode of Transmission categories and list of abbreviations are provided on page 5.

Table A2: Definitions Related to Risk Exposure Categories

Term	Definitions
Endemic	<p>Includes persons originating from or resided in an HIV-endemic country. Includes these risk factors if reported: born in an HIV-endemic country, sexual contact while in an HIV endemic country, Injection Drug Use (IDU) within an HIV-endemic country.</p> <p>An HIV-Endemic country is defined as a country with "an adult prevalence (ages 15-49 years) of HIV is 1.0% or greater and one of the following: 50% or more of HIV cases attributed to heterosexual transmission; a male to female ratio of 2:1 or less; or HIV prevalence greater than or equal to 2% among women receiving prenatal care."</p> <p>The HIV-endemic country list followed is provided from PHAC.</p> <p>Source: Public Health Agency Canada. <i>HIV and AIDS in Canada. Surveillance Report to December 31, 2010</i>. Surveillance and Risk Assessment Division, Centre for Communicable Diseases and Infection Control, Public Health Agency of Canada, 2012.</p>
Heterosexual Contact	Includes individuals reporting heterosexual activity with person(s) who is HIV positive or is at increased risk of HIV infection.
IDU	Individuals who report any Injection Drug Use.
MSM/IDU	Men who have sex with men AND indicate injection drug use (IDU).
MSM	Men who have sex with men (without report of IDU).
No Identifiable Risk	No identifiable risk (NIR) is the category assigned to a case when either no risk factor information is identified or available from the case report form, or the case report form was not completed. Includes in the process of follow-up or lost-to-follow-up.
Perinatal	Mother-to-child transmission. Typically, this information is reported by specialist physicians directly to PHAC through the sentinel surveillance system: Canadian Perinatal Surveillance System.
Recipient of Blood/ Blood Products prior to 1985	Individual indicates that he/she received blood or blood products prior to 1985.
Occupational	Examples of occupational include: needle stick injury, exposure to blood or bodily fluids in an occupational environment.

Appendix B: Reporting Forms

Links to Manitoba Health Public Health Forms used in routine surveillance of HIV and AIDS:

HIV Case Investigation Form for Nominal & Non-Nominal Positive Cases (implemented 2008)

<http://www.gov.mb.ca/health/publichealth/cdc/protocol/hivcaseinvestigation.pdf>

HIV Contact Notification Form (implemented 2006)

<http://www.gov.mb.ca/health/publichealth/cdc/protocol/hivcontactnotification.pdf>

AIDS Case Report Form (Note this is also a Public Health Agency of Canada Form)

<http://www.gov.mb.ca/health/publichealth/cdc/protocol/form5.pdf>

Appendix C: HIV Descriptive Data Tables

Table 1: Number of HIV Positive Cases in Manitoba, from 1985 to December 31, 2012

Years	Number of Female Cases	Number of Male Cases	Total Number of Cases
1985-2002	187	794	911
2003	39	67	107
2004	40	61	101
2005	41	74	115
2006	28	49	77
2007	24	51	75
2008	35	53	88
2009	46	57	104
2010	37	85	122
2011	31	49	80
2012	29	45	74
Total	537	1385	1922

Table 2: Number of HIV Positive Cases in Manitoba, By Age Category, Sex, and Year

Age Category	Sex	1985-2009	2010	2011	2012
<15	M	7	0	0	0
	F	10	1	0	1
15-19	M	19	1	1	0
	F	31	2	4	1
20-29	M	332	20	6	9
	F	159	13	7	5
30-39	M	468	27	18	10
	F	153	11	10	11
40-49	M	247	20	14	14
	F	53	8	4	6
50+	M	133	17	10	12
	F	34	2	6	5
Total	M	1206	85	49	45
	F	440	37	31	29

Table 3: Number of HIV Positive Cases in Manitoba, By Geographic Residence, Sex, and Year of Diagnosis

Health Region	1985-2009		2010		2011		2012		Total
	F	M	F	M	F	M	F	M	
Interlake-Eastern	15	54	1	7	3	2	0	2	84
Northern	12	25	2	0	2	1	2	2	46
Prairie Mountain	12	33	1	4	4	4	3	1	62
Southern	22	49	1	4	0	3	3	3	85
Winnipeg*	365	1,007	32	69	21	37	21	34	1,584
Out-of-Province	10	25	0	1	1	2	0	3	42
unknown RHA	4	13	0	0	0	0	0	0	13
Total	440	1,206	37	85	31	49	29	45	1,922

*Note: Included in the cases for Winnipeg health region are two cases from the former Churchill RHA: 1 case reported in 2010 and 1 case in 2012.

There were 17 cases from the period 1985-2000 that could not be assigned to current RHA geographic areas. These cases are listed as "Unknown" in the above table.

Geographies based on the new health regions, as of June, 2012. A map of the regional health authorities can be found on the Manitoba Health website: <http://www.gov.mb.ca/health/rha/index.html>

Table 4: Number of HIV Positive Cases in Manitoba, By Self-Reported Ethnicity and Year of Diagnosis

Ethnic Category	1999-2009	2010	2011	2012
Aboriginal	315	43	30	32
Caucasian	259	38	17	12
African/ African-Canadian	193	25	14	14
Asian	23	4	4	4
Latin American	11	0	0	1
South Asian/ Arab/ West Asian	10	3	0	2
Other	4	1	1	2
Unknown/Missing/ Refused	831	8	14	7
Total	1646	122	80	74

Note: Collection of ethnicity data began in 1999. Ethnicity data should be interpreted with caution particularly with comparisons to previous years due to changes in the proportion of unknown or missing ethnicity information. Missing information creates a data limitation and it is difficult to determine to interpret trends or changes in ethnicity data.

Table 5: Number of HIV Positive Cases in Manitoba By Risk Exposure Category (Primary Mode of Transmission) and Year of Diagnosis

Risk Exposure Category	Sex	1985-2009	2010	2011	2012
Endemic	M	93	13	5	7
	F	116	8	5	7
Heterosexual	M	230	22	17	16
	F	163	18	15	13
IDU	M	151	11	2	3
	F	96	5	3	6
MSM	M	541	26	13	14
MSM/IDU	M	58	3	0	1
NIR	M	99	9	12	4
	F	50	5	8	3
Occupational	M	2	0	0	0
	F	0	0	0	0
Perinatal	M	2	0	0	0
	F	1	1	0	0
Recp B/B products	M	30	1	0	0
	F	14	0	0	0
Total	M	1206	85	49	45
	F	440	37	31	29

Note: Challenges in obtaining completed case reports have been noted in some years. Therefore, risk exposure category information presented recent years should be interpreted with some caution particularly with comparisons to previous years due to the varying degrees of incomplete risk factor information. Missing information creates a data limitation and it is difficult to determine if the distribution of risk exposure categories shown in the most recent dataset reflect true changes.

Abbreviations are listed in Appendix A.

Appendix D : AIDS Descriptive Tables

Table 6: Number of Reported AIDS Cases and Deaths in Manitoba by Year of Diagnosis

Year	Number of Cases	Number of Deaths
1985-2002	213	164
2003	16	6
2004	10	7
2005	9	5
2006	14	9
2007	8	5
2008	6	2
2009	2	2
2010	4	4
2011	2	2
2012	7	2
Total	291	208

Note: This data includes only those AIDS cases and deaths of AIDS cases that have been reported to Manitoba Health. Delays in reporting may occur, and not all deaths may be reported. Please see Appendix A of this report for further reporting detail. Note that year of diagnosis is based on date of diagnosis of first AIDS-defining illness (according to the national case definition for AIDS) and may differ from date of report to Manitoba Health. It is also possible to have a death reported for cases that were diagnosed with AIDS in previous years.

Table 7: Number of Reported AIDS Cases in Manitoba, By Age-Gender Category and Year of Diagnosis

Age Group	1985-2002		2003-2007		2008-2012	
	F	M	F	M	F	M
under 15	1	2	1	0	0	0
15-19	0	1	0	0	0	0
20-24	2	6	0	0	1	0
25-29	1	25	5	3	0	1
30-39	8	94	11	12	2	4
40-49	5	40	6	10	2	7
50+	2	26	2	7	1	3
Total	19	194	25	32	6	15

Table 8: Number of Reported AIDS Cases in Manitoba by RHA of Residence and Year of Diagnosis

Health Region	1985-2002		2003-2007		2008-2012	
	F	M	F	M	F	M
Winnipeg	18	173	22	29	4	14
Prairie Mountain	1	10	0	1	1	1
Interlake-Eastern	0	3	1	2	1	0
Northern	0	3	2	0	0	0
Southern	0	1	0	0	0	0
Out-of-Province	0	3	0	0	0	0
Total	19	193	25	32	6	15

Notes: Tables 2 through 5 have been aggregated into five-year groups due to small annual case counts in the past ten years. Note: Geographies based on the new health region boundaries, as of June, 2012. A map of the regional health authorities can be found on the Manitoba Health website: <http://www.gov.mb.ca/health/rha/index.html>

Table 9: Number of Reported AIDS Cases in Manitoba by Risk Exposure Category (Primary Mode of Transmission) Among Female Cases

Females: Exposure Category	1985-2002	2003-2007	2008-2012	Total
Endemic	3	7	0	10
Heterosexual	8	9	6	23
IDU	5	9	0	14
Perinatal	1	0	0	1
Recp B/B products	2	0	0	2
Total	19	25	6	50

Table 10: Number of Reported AIDS Cases in Manitoba by Risk Exposure Category (Primary Mode of Transmission) Among Male Cases

Males: Exposure Category	1985-2002	2003-2007	2008-2012	Total
Endemic	3	0	1	4
Heterosexual	21	10	3	34
IDU	13	7	1	21
MSM	130	11	8	149
MSM/IDU	10	0	0	10
Perinatal	1	0	0	1
Recp B/B products	14	1	0	15
NIR	2	3	2	7
Total	194	32	15	241

